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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/360,542	07/26/1999	LUIS FELIPE CABRERA	2110	4320

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EXAMINER
LE, DIEU MINH T

ART UNIT	PAPER NUMBER
2184	

DATE MAILED: 06/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

		Application No.	Applicant(s)
Office Action Summary		09/360,542	CABRERA ET AL.
		Examiner	Art Unit
		Dieu-Minh Le	2184

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _21 May 2003_ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-55_ is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-55_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

  If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All b)☐ Some * c)☐ None of:

    1. ☐ Certified copies of the priority documents have been received.

    2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6) ☐ Other: .

DETAILED ACTION

1.   This Office Action is in response to the RCE filed May 21,
2003 in application 09/360,542.

2.   Claims 1-55 are again presented for examination.

3.   The text of those sections of Title 35, U.S. Code not
included in this action can be found in a prior Office action.

4.   Claims 1-55 are rejected under 35 U.S.C. § 103(a) as being
unpatentable McGill, III et al. (US Patent 5,469,573 hereafter
referred to as McGill) in view of Hugard et al. (US Patent
5,745,669 hereafter referred to as Hugard).

<u>As per claim 1:</u>

        McGill substantially teaches the invention. McGill teaches:
        - a method for backing up and restoring a computer system
        [abstract, fig. 2, col. 1, lines 1-6] comprising:
        - writing information/data to first medium including
        storage mechanism configuration data [fig. 3, col. 2, lines
        21-22];
        - writing data files via the backup device to a second
        medium [fig. 3, col. 2, lines 22-23];
        - reading information from the first medium [col. 2, lines
23-26];
        - automatically configuring a storage mechanism based on
        the storage mechanism configuration data, and creating a
        restoration environment [col. 2, lines 23-26];

- enabling the operation of the backup device [col. 2, lines 26-28];

- operation the backup device to restore the data files [col. 2, lines 28-31].

McGill does not explicitly teach:
- system state information.

However, McGill does disclose capability of:
- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];

In addition, Hugard explicitly teaches:
- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];
comprising:
- computer configuration data [col. 16, lines 6-15] including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc... [col. 10, lines 6-22];
- configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-67].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made first, to realize McGill's computer system comprising failure detection, backup and recovery function, executing data parameter (i.e., data configurations), receiving, storing data,

etc…, and more specifically data information including operating
system files, system configuration files, device driver files,
and any other files necessary to properly configure and operate
the workstation [col. 3, lines 51-58], recovery configuration
for the system [fig. 3, col. 4, lines 24-39] as being the system
state information as claimed by Applicant since the system state
or data restoring and recovering are used to recover data or
constructing data which has been lost via power failure, system
crash, viruses, catastrophic failure; second, one would and can
modify the McGill's computer system comprising failure
detection, backup and recovery function, executing data
parameter (i.e., data configurations), receiving, storing data,
failure detection and recovery function, executing data
parameter (i.e., data configurations), receiving, storing data,
etc…to explicitly including computer configuration data [col.
16, lines 6-15] including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI,
etc… [col. 10, lines 6-22] and configuration files and recovery
tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc…
[col. 12, lines 41-67] as taught by Hugard in supporting the
system's error detecting and locating failure errors
capabilities, error displaying capability, fault detection and
signaling, error tracking, monitoring, as well as comparison for
data testing, a signature analysis, a fault testing, fault
detection and signaling via backup and restoring capabilities
within the computer system.

This modification would have been obvious because a person
having ordinary skill in the art would have been motivated to do
so to provide the error handling within a error detection and
recovery of computer data system, more specifically to the
backup and restoring a computer system with a mechanism to

enhance the computer system availability, performance throughput, and error free processing therein. It is further obvious because by utilizing this approach, the backup and restoring (i.e., error detection and recovery) system can be realized that any error or failure occurred in a computer data system can be identified, detected, corrected via data comparison/checking, data receiving and executing, etc.. in ordering to achieving high reliability and flexibility environment which will eventually provide optimum data availability.

As per claims 2-4:

McGill substantially teaches the invention. McGill teaches:
- a method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];
- writing **device driver** to the medium [col. 2, lines 43-47];
- identifying a **restore program** [fig. 2, col. 4, lines 30-37].
- writing **hard disk configuration information as the storage mechanism configuration data** [col. 2, lines 45-60].

In addition, Hugard explicitly teaches:
- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];
comprising:

- configuration files and recovery tool files including
*.INI, **.DRV,** *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-
67].

As per claim 5:

McGill substantially teaches the invention. McGill teaches:
- a method for backing up and restoring a computer system
[abstract, fig. 2, col. 1, lines 1-6] comprising:
- data information including operating system files, system
configuration files, device driver files, and any other
files necessary to properly configure and operate the
workstation [col. 3, lines 51-58];
- **a floppy disk medium** [col. 2, lines 40-42];

In addition, Hugard explicitly teaches:
- a backup and restoring data configuration system
[abstract, col. 1, lines 10-18];
comprising:
- configuration files and recovery tool files including
*.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-
67].
- **a floppy disk medium** [col. 3, lines 37-45].

As per claim 6:

Even though McGill does not explicitly teach:
- a CD-ROM medium.

However, McGill discloses capabilities of:
- a removable media [col. 2, lines 40-42];
- an **optical disk drive medium** [col. 3, line 60].

Therefore, it would have been obvious to an ordinary skill in the art to realize the McGill's removable and optical disk drive medium as being the CD-ROM medium. This is because the optical disk drive's data is stored in a CD-ROM type medium and is read by optical light function. In addition, the CD-ROM feature is notoriously well known and widely used in computer arena. Generally speaking, every computer now-a-day has either external or internal CD-ROM capability therein.

As per claims 7-8:

McGill substantially teaches the invention. McGill teaches:
- a method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];
- **transmitting data over transmission medium** [fig. 1, col. 4, lines 1-5];
- **saving information to network files** [col. 6, lines 35-50].

In addition, Hugard explicitly teaches:
- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];
comprising:
- saving computer configuration data capability [col. 7, lines 29-35].

As per claims 9-11:

McGill substantially teaches the invention. McGill teaches:

- a method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] with a restoration comprising:

- **automatically configuring a storage mechanism includes configuring a hard disk based on the storage mechanism configuration data, and creating a restoration environment** [col. 2, lines 23-26];

- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];

- a **hard drive medium** [col. 2, lines 58-59];

- configuring hard drive and copy files to the hard drive [col. 2, lines 58-67].

- hard drive including a boot volume and system volume [fig. 2, col. 2, line 58 through col. 3, line 5].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];

with a restoration comprising:

- a **hard drive medium** [col. 4, lines 1-5];

- a computer system boot from hard disk for recovery [col. 4, lines 48-60.

As per claim 12:

McGill does not explicitly address:

- registry data to a system registry.

However, McGill does disclose capability of:

- loading system configuration data, initializing the
system configuration data, and re-initializing the system
configuration data [col. 2, lines 18-47].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system
[abstract, col. 1, lines 10-18];

 comprising:

- a checkpoint routine used for system recovery process
[col. 5, lines 47-60];

Therefore, it would have been obvious to a person having
ordinary skill in the art at the time the invention was made
first, to realize McGill's computer system comprising failure
detection, backup and recovery function, executing data
parameter (i.e., data configurations), and more specifically
loading system configuration data, initializing the system
configuration data, and re-initializing the system configuration
data [col. 2, lines 18-47] as being the registry data to a
system registry as claimed by Applicant since the system state
or data restoring and recovering having the registry data are
used to recover data or constructing data which has been lost
via power failure, system crash, viruses, catastrophic failure;
second, one would and can modify the McGill's computer system
comprising failure detection, backup and recovery function,
executing data parameter (i.e., data configurations), receiving,
storing data, failure detection and recovery function, executing
data parameter (i.e., data configurations), receiving, storing

data, etc...to explicitly including a checkpoint routine used for system recovery process [col. 5, lines 47-60] as taught by Hugard in supporting the system's error detecting and locating failure errors capabilities, error displaying capability, fault detection and signaling, error tracking, monitoring, as well as comparison for data testing, a signature analysis, a fault testing, fault detection and signaling via backup and restoring capabilities within the computer system.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide the error handling within a error detection and recovery of computer data system, more specifically to the backup and restoring a computer system with a mechanism to enhance the computer system availability, performance throughput, and error free processing therein.

As per claims 13-14:

McGill substantially teaches the invention. McGill teaches:
- a method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];
- **a tape drive medium** [col. 3, lines 59-60];
- a **hard drive medium** [col. 2, lines 58-59];
- configuring hard drive and copy files to the hard drive [col. 2, lines 58-67].
- hard drive including a boot volume and system volume [fig. 2, col. 2, line 58 through col. 3, line 5].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system
[abstract, col. 1, lines 10-18];

comprising:

- configuration files and recovery tool files including
*.INI, *.DRV, *.SYS, *.COM, *.EXE, etc… [col. 12, lines 41-
67].

- **a tape drive medium** [fig. 2, col. 7, lines 28-45];

- a **hard drive medium** [col. 4, lines 1-5];

As per claims 15-17:

McGill substantially teaches the invention. McGill teaches:

- a method for backing up and restoring a computer system
[abstract, fig. 2, col. 1, lines 1-6] comprising:

- data information including operating system files, system
configuration files, device driver files, and any other
files necessary to properly configure and operate the
workstation [col. 3, lines 51-58];

- writing **device driver** to the medium [col. 2, lines 43-
47];

- identifying a **restore program** [fig. 2, col. 4, lines 30-
37].

- writing **hard disk configuration information** [col. 2,
lines 45-60]

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system
[abstract, col. 1, lines 10-18];

comprising:

- configuration files and recovery tool files including

*.INI, **.DRV**, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-

67].

As per claim 18:

McGill substantially teaches the invention. McGill teaches:

- a method for backing up and restoring a computer system

[abstract, fig. 2, col. 1, lines 1-6] comprising:

- collecting information/data including hard disk

configuration [fig. 3, col. 2, lines 21-22 and col. 2,

lines 58-67];

- recording (i.e., writing) data files a accessible medium

[fig. 3, col. 2, lines 22-23];

- recording recovery information to the medium [col. 2,

lines 23-31];

McGill does not explicitly teach:

- system state information.

However, McGill does disclose capability of:

- data information including operating system files, system

configuration files, device driver files, and any other

files necessary to properly configure and operate the

workstation [col. 3, lines 51-58];

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system

[abstract, col. 1, lines 10-18];

comprising:

- computer configuration data [col. 16, lines 6-15]
including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc... [col.
10, lines 6-22];
- configuration files and recovery tool files including
*.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-
67].

Therefore, it would have been obvious to a person having
ordinary skill in the art at the time the invention was made
first, to realize McGill's computer system comprising failure
detection, backup and recovery function, executing data
parameter (i.e., data configurations), receiving, storing data,
etc..., and more specifically data information including operating
system files, system configuration files, device driver files,
and any other files necessary to properly configure and operate
the workstation [col. 3, lines 51-58], recovery configuration
for the system [fig. 3, col. 4, lines 24-39] as being the system
state information as claimed by Applicant since the system state
or data restoring and recovering are used to recover data or
constructing data which has been lost via power failure, system
crash, viruses, catastrophic failure; second, one would and can
modify the McGill's computer system comprising failure
detection, backup and recovery function, executing data
parameter (i.e., data configurations), receiving, storing data,
failure detection and recovery function, executing data
parameter (i.e., data configurations), receiving, storing data,
etc...to explicitly including computer configuration data [col.
16, lines 6-15] including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI,
etc... [col. 10, lines 6-22] and configuration files and recovery
tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc...

[col. 12, lines 41-67] as taught by Hugard in supporting the system's error detecting and locating failure errors capabilities, error displaying capability, fault detection and signaling, error tracking, monitoring, as well as comparison for data testing, a signature analysis, a fault testing, fault detection and signaling via backup and restoring capabilities within the computer system.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide the error handling within a error detection and recovery of computer data system, more specifically to the backup and restoring a computer system with a mechanism to enhance the computer system availability, performance throughput, and error free processing therein. It is further obvious because by utilizing this approach, the backup and restoring (i.e., error detection and recovery) system can be realized that any error or failure occurred in a computer data system can be identified, detected, corrected via data comparison/checking, data receiving and executing, etc.. in ordering to achieving high reliability and flexibility environment which will eventually provide optimum data availability.

As per claim 19-20:

McGill teaches:

- a custom driver (removable driver) [col. 2, lines 40-42]

McGill does not explicitly address:

- registry data to a system registry.

However, McGill does disclose capability of:

- loading system configuration data, initializing the
system configuration data, and re-initializing the system
configuration data [col. 2, lines 18-47].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system
[abstract, col. 1, lines 10-18];

 comprising:

- a checkpoint routine used for system recovery process
[col. 5, lines 47-60];

Therefore, it would have been obvious to a person having
ordinary skill in the art at the time the invention was made
first, to realize McGill's computer system comprising failure
detection, backup and recovery function, executing data
parameter (i.e., data configurations), and more specifically
loading system configuration data, initializing the system
configuration data, and re-initializing the system configuration
data [col. 2, lines 18-47] as being the registry data to a
system registry as claimed by Applicant since the system state
or data restoring and recovering having the registry data are
used to recover data or constructing data which has been lost
via power failure, system crash, viruses, catastrophic failure;
second, one would and can modify the McGill's computer system
comprising failure detection, backup and recovery function,
executing data parameter (i.e., data configurations), receiving,
storing data, failure detection and recovery function, executing
data parameter (i.e., data configurations), receiving, storing
data, etc…to explicitly including a checkpoint routine used for

system recovery process [col. 5, lines 47-60] as taught by Hugard in supporting the system's error detecting and locating failure errors capabilities, error displaying capability, fault detection and signaling, error tracking, monitoring, as well as comparison for data testing, a signature analysis, a fault testing, fault detection and signaling via backup and restoring capabilities within the computer system.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide the error handling within a error detection and recovery of computer data system, more specifically to the backup and restoring a computer system with a mechanism to enhance the computer system availability, performance throughput, and error free processing therein.

As per claim 21-26:

McGill substantially teaches the invention. McGill teaches:
- a method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];
- **a floppy disk medium** [col. 2, lines 40-42];
- writing **device driver** to the medium [col. 2, lines 43-47];
- identifying a **restore program** [fig. 2, col. 4, lines 30-37].
- writing **hard disk configuration information** [col. 2, lines 45-60]

- saving a list of instruction to execute (i.e., access
control list) [col. 6, lines 35-50].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system
[abstract, col. 1, lines 10-18];

comprising:

- configuration files and recovery tool files including
*.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-
67].

- **a floppy disk medium** [col. 3, lines 37-45].

As per claims 27-28:

McGill substantially teaches the invention. McGill teaches:

- a method for restoring a computer system [abstract, fig.
2, col. 1, lines 1-6] comprising:

- accessing information/data including hard disk
configuration [fig. 3, col. 2, lines 21-22 and col. 2,
lines 58-67];

- interpreting the hard disk configuration information to
automatically configured a hard disk [col. 2, lines 23-31]
(i.e., data information executing including operating
system files, system configuration files, device driver
files, data information including operating system files,
system configuration files, device driver files, and any
other files necessary to properly configure and operate the
workstation [col. 3, lines 51-58].

- creating a restoration environment [fig. 3, col. 2, lines
22-31] including writing information/data to hard disk
[fig. 3, col. 2, lines 21-22];

- executing recovery instruction information [col. 2, lines
23-31] (i.e., data information executing including
operating system files, system configuration files, device
driver files [col. 3, lines 51-58]).

McGill does not explicitly teach:
- system state information.

However, McGill does disclose capability of:
- data information including operating system files, system
configuration files, device driver files, and any other
files necessary to properly configure and operate the
workstation [col. 3, lines 51-58];

In addition, Hugard explicitly teaches:
- a backup and restoring data configuration system
[abstract, col. 1, lines 10-18];
comprising:
    - computer configuration data [col. 16, lines 6-15]
    including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc… [col.
    10, lines 6-22];
    - configuration files and recovery tool files including
    *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc… [col. 12, lines 41-
    67].

Therefore, it would have been obvious to a person having
ordinary skill in the art at the time the invention was made
first, to realize McGill's computer system comprising failure
detection, backup and recovery function, executing data
parameter (i.e., data configurations), receiving, storing data,

etc..., and more specifically data information including operating
system files, system configuration files, device driver files,
and any other files necessary to properly configure and operate
the workstation [col. 3, lines 51-58], recovery configuration
for the system [fig. 3, col. 4, lines 24-39] as being the system
state information as claimed by Applicant since the system state
or data restoring and recovering are used to recover data or
constructing data which has been lost via power failure, system
crash, viruses, catastrophic failure; second, one would and can
modify the McGill's computer system comprising failure
detection, backup and recovery function, executing data
parameter (i.e., data configurations), receiving, storing data,
failure detection and recovery function, executing data
parameter (i.e., data configurations), receiving, storing data,
etc...to explicitly including computer configuration data [col.
16, lines 6-15] including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI,
etc... [col. 10, lines 6-22] and configuration files and recovery
tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc...
[col. 12, lines 41-67] as taught by Hugard in supporting the
system's error detecting and locating failure errors
capabilities, error displaying capability, fault detection and
signaling, error tracking, monitoring, as well as comparison for
data testing, a signature analysis, a fault testing, fault
detection and signaling via backup and restoring capabilities
within the computer system.

This modification would have been obvious because a person
having ordinary skill in the art would have been motivated to do
so to provide the error handling within a error detection and
recovery of computer data system, more specifically to the
backup and restoring a computer system with a mechanism to

enhance the computer system availability, performance throughput, and error free processing therein. It is further obvious because by utilizing this approach, the backup and restoring (i.e., error detection and recovery) system can be realized that any error or failure occurred in a computer data system can be identified, detected, corrected via data comparison/checking, data receiving and executing, etc.. in ordering to achieving high reliability and flexibility environment which will eventually provide optimum data availability.

As per claims 29-31:

McGill substantially teaches the invention. McGill teaches:
- a method for restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] with a restoration comprising:
- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];
- a **hard drive medium** [col. 2, lines 58-59];
- configuring hard drive and copy files to the hard drive [col. 2, lines 58-67].
- hard drive including a boot volume and system volume [fig. 2, col. 2, line 58 through col. 3, line 5]
- **a floppy disk medium** [col. 2, lines 40-42];

In addition, Hugard explicitly teaches:
- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];
with a restoration comprising:

- a **hard drive medium** [col. 4, lines 1-5];

- configuration files and recovery tool files including
*.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-
67].

- **a floppy disk medium** [col. 3, lines 37-45].

As per claims 32-34:

McGill substantially teaches the invention. McGill teaches:
- a method for restoring a computer system [abstract, fig.
2, col. 1, lines 1-6] with a restoration comprising:
- a graphical window environment (data information
including operating system files, system configuration
files, device driver files, and any other files necessary
to properly configure and operate the workstation operated
in a window environment (i.e., Win 3.x)) [col. 3, lines 41-
50];
- an OS/2 operation environment (i.e., a window driven)
[col. 7, lines 43-53].

As per claims 35-38:

McGill substantially teaches the invention. McGill teaches:
- a method for backing up and restoring a computer system
[abstract, fig. 2, col. 1, lines 1-6] comprising:
- data information including operating system files, system
configuration files, device driver files, and any other
files necessary to properly configure and operate the
workstation [col. 3, lines 51-58];
- writing **device driver** to the medium [col. 2, lines 43-
47];

- identifying a **restore program** [fig. 2, col. 4, lines 30-37].

- writing **hard disk configuration information** [col. 2, lines 45-60].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];

comprising:

- configuration files and recovery tool files including *.INI, ***.DRV**, *.SYS, *.COM, *.EXE, etc… [col. 12, lines 41-67].

As per claims 39-41:

McGill substantially teaches the invention. McGill teaches:

- a system for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:

- a medium [fig. 2, col. 3, lines 58-65];

- a backup component, collecting information/data including hard disk configuration [fig. 3, col. 2, lines 21-22 and col. 2, lines 58-67];

- recording (i.e., writing) data files a accessible medium [fig. 3, col. 2, lines 22-23];

- a restore component, restoring recovery information to the medium [col. 2, lines 23-31];

- configuring computer device with information [col. 2, lines 23-31] (i.e., data information executing including operating system files, system configuration files, device driver files [col. 3, lines 51-58])

        - **automatically configuring a storage mechanism includes
        configuring a hard disk based on the storage mechanism
        configuration data**[col. 2, lines 23-26];

    McGill does not explicitly teach:
    - system state information.

    However, McGill does disclose capability of:
    - data information including operating system files, system
    configuration files, device driver files, and any other
    files necessary to properly configure and operate the
    workstation [col. 3, lines 51-58];

    In addition, Hugard explicitly teaches:
    - a backup and restoring data configuration system
    [abstract, col. 1, lines 10-18];
comprising:
        - computer configuration data [col. 16, lines 6-15]
        including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc… [col.
        10, lines 6-22];
        - configuration files and recovery tool files including
        *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc… [col. 12, lines 41-
        67].

    Therefore, it would have been obvious to a person having
ordinary skill in the art at the time the invention was made
first, to realize McGill's computer system comprising failure
detection, backup and recovery function, executing data
parameter (i.e., data configurations), receiving, storing data,
etc…, and more specifically data information including operating

system files, system configuration files, device driver files,
and any other files necessary to properly configure and operate
the workstation [col. 3, lines 51-58], recovery configuration
for the system [fig. 3, col. 4, lines 24-39] as being the system
state information as claimed by Applicant since the system state
or data restoring and recovering are used to recover data or
constructing data which has been lost via power failure, system
crash, viruses, catastrophic failure; second, one would and can
modify the McGill's computer system comprising failure
detection, backup and recovery function, executing data
parameter (i.e., data configurations), receiving, storing data,
failure detection and recovery function, executing data
parameter (i.e., data configurations), receiving, storing data,
etc…to explicitly including computer configuration data [col.
16, lines 6-15] including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI,
etc… [col. 10, lines 6-22] and configuration files and recovery
tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc…
[col. 12, lines 41-67] as taught by Hugard in supporting the
system's error detecting and locating failure errors
capabilities, error displaying capability, fault detection and
signaling, error tracking, monitoring, as well as comparison for
data testing, a signature analysis, a fault testing, fault
detection and signaling via backup and restoring capabilities
within the computer system.

This modification would have been obvious because a person
having ordinary skill in the art would have been motivated to do
so to provide the error handling within a error detection and
recovery of computer data system, more specifically to the
backup and restoring a computer system with a mechanism to
enhance the computer system availability, performance

throughput, and error free processing therein. It is further
obvious because by utilizing this approach, the backup and
restoring (i.e., error detection and recovery) system can be
realized that any error or failure occurred in a computer data
system can be identified, detected, corrected via data
comparison/checking, data receiving and executing, etc.. in
ordering to achieving high reliability and flexibility
environment which will eventually provide optimum data
availability.

As per claims 42-45 and 47:

McGill substantially teaches the invention. McGill teaches:
- a system for backing up and restoring a computer system
[abstract, fig. 2, col. 1, lines 1-6] comprising:
- data information including operating system files, system
configuration files, device driver files, and any other
files necessary to properly configure and operate the
workstation [col. 3, lines 51-58];
- a **hard drive medium** [col. 2, lines 58-59];
- configuring hard drive and copy files to the hard drive
[col. 2, lines 58-67].
- hard drive including a boot volume and system volume
[fig. 2, col. 2, line 58 through col. 3, line 5]
- **a floppy disk medium** [col. 2, lines 40-42];
- **automatically configuring a storage mechanism includes
configuring a hard disk based on the storage mechanism
configuration data** [col. 2, lines 23-26];

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system
[abstract, col. 1, lines 10-18];

with a restoration comprising:

- a **hard drive medium** [col. 4, lines 1-5];

- configuration files and recovery tool files including
*.INI, *.DRV, *.SYS, *.COM, *.EXE, etc… [col. 12, lines 41-67].

- **a floppy disk medium** [col. 3, lines 37-45].

As per claim 46:

McGill does not explicitly address:

- system registry information to a computer system.

However, McGill does disclose capability of:

- loading system configuration data, initializing the
system configuration data, and re-initializing the system
configuration data [col. 2, lines 18-47].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system
[abstract, col. 1, lines 10-18];

comprising:

- a checkpoint routine used for system recovery process
[col. 5, lines 47-60];

Therefore, it would have been obvious to a person having
ordinary skill in the art at the time the invention was made
first, to realize McGill's computer system comprising failure
detection, backup and recovery function, executing data
parameter (i.e., data configurations), and more specifically

loading system configuration data, initializing the system
configuration data, and re-initializing the system configuration
data [col. 2, lines 18-47] as being the registry data to a
system registry as claimed by Applicant since the system state
or data restoring and recovering having the registry data are
used to recover data or constructing data which has been lost
via power failure, system crash, viruses, catastrophic failure;
second, one would and can modify the McGill's computer system
comprising failure detection, backup and recovery function,
executing data parameter (i.e., data configurations), receiving,
storing data, failure detection and recovery function, executing
data parameter (i.e., data configurations), receiving, storing
data, etc…to explicitly including a checkpoint routine used for
system recovery process [col. 5, lines 47-60] as taught by
Hugard in supporting the system's error detecting and locating
failure errors capabilities, error displaying capability, fault
detection and signaling, error tracking, monitoring, as well as
comparison for data testing, a signature analysis, a fault
testing, fault detection and signaling via backup and restoring
capabilities within the computer system.

This modification would have been obvious because a person
having ordinary skill in the art would have been motivated to do
so to provide the error handling within a error detection and
recovery of computer data system, more specifically to the
backup and restoring a computer system with a mechanism to
enhance the computer system availability, performance
throughput, and error free processing therein.

As per claims 48-55:

McGill substantially teaches the invention. McGill teaches:

- a system for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:

- writing information/data to first medium [fig. 3, col. 2, lines 21-22];

- writing data files via the backup device to a second medium [fig. 3, col. 2, lines 22-23];

- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];

- installing **device driver** to the medium [col. 2, lines 43-47];

- a **restore program** [fig. 2, col. 4, lines 30-37].

- copy operating system files **hard disk drive** [fig. 3, col. 2, lines 45-60 and col. 5, lines 40-50]

- creating a restoration environment [fig. 3, col. 2, lines 22-31];

- executing recovery instruction information [col. 2, lines 23-31] (i.e., data information executing including operating system files, system configuration files, device driver files [col. 3, lines 51-58]).

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];

comprising:

- computer configuration data [col. 16, lines 6-15] including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc… [col. 10, lines 6-22];

- configuration files and recovery tool files including *.INI,
*.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-67].

Response to Applicant's remarks

Applicant asserts that McGill in combining with Hugard fail to
teach or suggest the following:

    a.   writing the state information to a first medium, the
        system state information including storage mechanism
        configuration data;

    b.   collecting and assessing state information including
        hard disk configuration information;

Examiner respectfully transverses Applicant's arguments as
follows:

First, the combination of McGill's a method for recovering
from a failure of a computer system and Hugard's a backup and
restoring data configuration system do clearly teach the
Applicant's invention. McGill further explicitly teaches a
connectivity among hard disk including operating system, system
configuration data, drivers, application file, backup disk or
tape, recovery disk, operating installation disk, recovery
application program, etc... [fig.2] via a high performance
backplane channel means [col. 3, lines 40 through col. 4, lines
13]. The system configuration data is loaded, copied, restored,
formatted, etc... within the computer system in supporting the
data recovery process [fig. 3-7]. In addition, Hugard further
discloses capabilities of recovering the computer system
configuration data via an automatically changing or configuring

the data file within the hard disk [abstract], save

configuration, format data files, store system configuration,

executing the data, etc… [fig. 2, col. 5, lines 46 through col.

6, lines 15]. It is so obvious to an ordinary skill in the art

to realize the combination of both McGill and Hugard's function,

capability, process, procedures, etc… of recovery from failure

of a computer system do apply and teach Applicant's invention.

Second, the "state information" is explicitly taught by the

combination of both McGill and Hugard's invention. The "state

information" of a computer system can be the hard disk

configuration including executive booting scripts, memory

pointers, instructions for data reboot, data registration within

the hard disk or memory, executing files, data file recovery,

etc… McGill and Hugard do illustrate all and much more about

computer "state information" therein in ordering to supporting

the recovery from a failure of a computer data system. It would

have been obvious to an ordinary skill in the art to realize the

data detection and recovery of McGill and Hugard's computer

system are the "state information" as called by Applicant since

they do use for the same function and perform the same data

recovery purpose.

a.   First, it is not true that true that McGill in combining

with Hugard fail to teach the "writing the state information to

a first medium, the system state information including storage

mechanism configuration data". McGill explicitly teaches the

data configuration (i.e., McGill's computer backup and recover

system comprising a connectivity among memory, CPU, drivers,

system configuration, etc… [fig. 1 and 2] for reading, writing,

loading, copying, configuring, etc… data within the computer
system [col. 2, lines 3-67]) in a certain format (or defined
format) used to ensuring data backup process properly [fig 5,
col. 6, lines 59 through col. 7, lines 5. In addition, McGill
teaches the use of FORMAT. COM utility to perform data process,
format, partition correctly [col. 7, lines 38-58]. It would have
been obvious to an ordinary skill in the art to implement McGill
format commands to performing data read/write to and from medium
in performing the computer backup and recover system.

Second, McGill's a method for restoring a computer system
comprising accessing information/data including hard disk
configuration, creating a restoration environment, executing
recovery instruction information [col. 2, lines 23-31] (i.e.,
data information executing including operating system files,
system configuration files, device driver files, data
information including operating system files, system
configuration files, device driver files, and any other files
necessary to properly configure and operate the workstation
[col. 3, lines 51-58] can only be performed automatically in
ordering to achieving the optimum data recovery result [fig. 11,
indicating the "automatic restore process from writing the state
information to a first medium.

b.   First, it is not true that McGill in combining with Hugard
fail to teach "collecting and assessing state information
including *hard disk confinguration information*". Examiner would
like to re-emphasize the McGill's computer backup and recover
system comprising a connectivity among memory, CPU, drivers,
system configuration, etc… [fig. 1 and 2] for reading, writing,

loading, copying, configuring, etc… data within the computer
system [col. 2, lines 3-67]. One ordinary skill in the art would
easily realize that the McGill's system does clearly deal with
data backup and recovery via a computer data configuration
(i.e., system state information). One ordinary skill in the art
can realize that the capabilities of reading, writing loading,
configuration a hard disk, etc… as being the collecting state
in formation that included hard disk state data as claimed by
Applicant since they both use and perform the same function that
is to obtain hard disk state information in ordering to
performing the data recovery within the computer data system. In
addition Hugard also address this feature via automatically
monitoring, selecting, querying data configuration data from
hard disk for data recovery process [abstract, fig. 2, col. 1,
lines 10-20 and col. 16, lines 5-55]. It is clearly and
intuitively to an ordinary skill in the art that both McGill and
Hugard do deal with the data accessed from hard disk for data
failure detection and recovery in allowing the computer to
operating uninterruptedly.

Second, McGill in combining with Hugard fail to teach the
configuring a hard disk based on the hard disk state". McGill
disclose capability of data information including operating
system files, system configuration files, device driver files,
and any other files necessary to properly configure and operate
the workstation, hard disk configuration [col. 2, lines 18-67].
In addition, Hugard explicitly teaches a backup and restoring
data configuration system comprising computer configuration data
including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc…
configuration files and recovery tool files including *.INI,

*.DRV, *.SYS, *.COM, *.EXE, etc… as well as automatically
monitoring, selecting, querying data configuration data from
hard disk for data recovery process [abstract, fig. 2, col. 1,
lines 10-20 and col. 16, lines 5-55]. This is clearly shown that
both McGill and Hugard's inventions do deal with the
automatically for configuring computer system based on the hard
disk state. It is further obvious to an ordinary skill in the
art because with automatically performing of the hard disk
configuration the computer can perform the data backup and
recovery process smoothly.

Conclusion

5.   The prior art made of record and not relied upon is
considered pertinent to applicant's disclosure.

6.   A shortened statutory period for response to this action is
set to expired THREE (3) months, ZERO days from the date of this
letter.   Failure to respond within the period for response will
cause the application to be abandoned. 35 U.S.C. 133.

7.   Any inquiry concerning this communication or earlier
communications from the examiner should be directed to Dieu-Minh
Le whose telephone number is (703) 305-9408. The examiner can
normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM.
The examiner can also be reached on alternate Fridays.
      If attempts to reach the examiner by telephone are
unsuccessful, the examiner's supervisor, Robert Beausoliel, can
be reached on (703)305-9713.   The fax phone number for this
Group is (703)746-7240.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.
Any response to this action should be mailed to:
            Commissioner of Patents and Trademarks
            Washington, D.C. 20231
    or faxed to:
            (703) 746-7239, (for formal communications intended for entry)
    Or:
            (703) 746-7240 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

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